

Please amend the claims as follows:

1-79. (Canceled).

1 ~~80~~. (New) A process for oxidation of alkylbenzenes to produce one or more product hydroperoxides comprising exposing an oxidation feed to oxidation conditions, the oxidation feed consisting essentially of an organic phase, the organic phase comprising one or more alkylbenzenes, an amount of water which is insufficient to form a separate aqueous phase, and a quantity of alkali metal base which is insufficient to precipitate out of solution during oxidation but effective under the oxidation conditions to produce an oxidation product stream comprising a total yield of one or more product hydroperoxides which is greater than that produced in the absence of the alkali metal base.

2 ~~81~~. (New) The process of claim ~~80~~ further comprising producing said total yield of one or more hydroperoxides which is 7% or more greater than that produced in the absence of the alkali metal base.

3 ~~82~~. (New) The process of claim ~~80~~ wherein the oxidation feed further consists essentially of from about 400 ppm to about 2 wt.% water.

4 ~~83~~. (New) The process of claim ~~81~~ wherein the oxidation feed further consists essentially of from about 400 ppm to about 2 wt.% water.

5 ~~84~~. (New) The process of claim ~~80~~ wherein the alkylbenzenes are selected from the group consisting of cumene, s-butylbenzene, and combinations thereof.

6 ~~85~~. (New) The process of claim ~~83~~ wherein said alkylbenzenes are selected from the group consisting of cumene, s-butylbenzene, and combinations thereof.

7 ~~86~~. (New) The process of claim ~~80~~ wherein the quantity of alkali metal base is sufficient to produce a molar ratio of from about 0.5:1 to about 4:1 to acids formed during said oxidation.

8 ~~87~~. (New) The process of claim ~~85~~ wherein said quantity of alkali metal base is sufficient to produce a molar ratio of from about 0.5:1 to about 4:1 to acids formed during said oxidation.

9 ~~88~~. (New) The process of claim ~~80~~ wherein said alkali metal is selected from the group consisting of sodium and potassium.

10 ~~89~~. (New) The process of claim ~~87~~ wherein said alkali metal is selected from the group consisting of sodium and potassium.

11 ~~90~~. (New) The process of claim ~~80~~ wherein said alkali metal base is selected from the group consisting of alkali metal carbonates and alkali metal bicarbonates.

¹²~~91~~. (New) The process of claim ~~89~~⁹⁰ wherein said alkali metal base is selected from the group consisting of alkali metal carbonates and alkali metal bicarbonates.

¹³~~92~~. (New) The process of claim ~~80~~⁹¹ wherein the quantity of alkali metal base is effective to perform a function selected from the group consisting of decreasing acetophenone formation, decreasing dimethyl benzyl alcohol formation, decreasing ethyl methyl benzyl alcohol formation, decreasing phenol content, and combinations thereof.

¹⁴~~93~~. (New) The process of claim ~~91~~⁹² wherein the quantity of alkali metal base is effective to perform a function selected from the group consisting of decreasing acetophenone formation, decreasing dimethyl benzyl alcohol formation, decreasing ethyl methyl benzyl alcohol formation, decreasing phenol content, and combinations thereof.

¹⁵~~94~~. (New) The process of claim ~~81~~⁹² wherein acetophenone formation is decreased by about 20% or more.

¹⁶~~95~~. (New) The process of claim ~~91~~⁹² wherein acetophenone formation is decreased by about 20% or more.

¹⁷~~96~~. (New) The process of claim ~~81~~⁹² wherein formation of one or more of dimethyl benzyl alcohol and ethyl methyl benzyl alcohol is decreased by about 20% or more.

¹⁸~~97~~. (New) The process of claim ~~95~~⁹⁶ wherein formation of one or more of dimethyl benzyl alcohol and ethyl methyl benzyl alcohol is decreased by about 20% or more.

¹⁹~~98~~. (New) The process of claim ~~81~~⁹² wherein phenol content is decreased by about 50% or more.

²⁰~~99~~. (New) The process of claim ~~97~~⁹⁸ wherein phenol content is decreased by about 50% or more.

²¹~~100~~. (New) A process for oxidation of alkylbenzenes to produce one or more product hydroperoxides comprising exposing an oxidation feed to oxidation conditions, the oxidation feed consisting essentially of an organic phase, the oxidation feed comprising one or more alkylbenzenes, an amount of water which is insufficient to form a separate aqueous phase, and a quantity of sodium carbonate which is insufficient to precipitate out of solution during oxidation but effective under the oxidation conditions to produce an oxidation product stream comprising a total yield of one or more product hydroperoxides which is greater than that produced in the absence of the sodium carbonate.

²²~~101~~. (New) The process of claim ~~100~~¹⁰⁰ further comprising producing said total yield of one or more hydroperoxides which is 7% or more greater than that produced in the absence of the sodium carbonate.

- ²⁴
23 102. (New) The process of claim 100 wherein amount of water is from about 400 ppm to about 2 wt.% water.
- ²²
24 103. (New) The process of claim 101 wherein amount of water is from about 400 ppm to about 2 wt.% water.
- ²¹
25 104. (New) The process of claim 100 wherein said alkylbenzenes are selected from the group consisting of cumene, s-butylbenzene, and combinations thereof.
- ²³
26 105. (New) The process of claim 103 wherein said alkylbenzenes are selected from the group consisting of cumene, s-butylbenzene, and combinations thereof.
- ²¹
27 106. (New) The process of claim 100 wherein said quantity of sodium carbonate is sufficient to produce a molar ratio of from about 0.5:1 to about 4:1 to acids formed during said oxidation.
- ²⁶
28 107. (New) The process of claim 105 wherein said quantity of sodium carbonate is sufficient to produce a molar ratio of from about 0.5:1 to about 4:1 to acids formed during said oxidation.
- ²¹
29 108. (New) The process of claim 100 wherein the quantity of sodium carbonate is effective to perform a function selected from the group consisting of decreasing acetophenone formation, decreasing dimethyl benzyl alcohol formation, decreasing ethyl methyl benzyl alcohol formation, decreasing phenol content, and combinations thereof.
- ²⁸
30 109. (New) The process of claim 107 wherein the quantity of sodium carbonate is effective to perform a function selected from the group consisting of decreasing acetophenone formation, decreasing dimethyl benzyl alcohol formation, decreasing ethyl methyl benzyl alcohol formation, decreasing phenol content, and combinations thereof.
- ²¹
31 110. (New) The process of claim 100 wherein acetophenone formation is decreased by about 20% or more.
- ²⁸
32 111. (New) The process of claim 107 wherein acetophenone formation is decreased by about 20% or more.
- ²¹
33 112. (New) The process of claim 100 wherein formation of one or more of dimethyl benzyl alcohol and ethyl methyl benzyl alcohol is decreased by about 20% or more.
- ³²
34 113. (New) The process of claim 111 wherein formation of one or more of dimethyl benzyl alcohol and ethyl methyl benzyl alcohol is decreased by about 20% or more.
- ²¹
35 114. (New) The process of claim 100 wherein phenol content is decreased by about 50% or more.

³⁶
115. (New) The process of claim ³⁴~~113~~ wherein phenol content is decreased by about 50% or more.